

## REMARKS

Favorable reconsideration, reexamination, and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks.

### Allowable Subject Matter

Applicant gratefully acknowledges the indication, at page 14 of the Office Action, that the subject matters of Claims 6, 9, and 13 - 15 are free of the prior art. By way of the foregoing amendments, Claims 6 and 9 have been placed in independent form; the subject matters from Claims 5 and 6 have been incorporated into prior Claim 1. As Claims 1 and 9 are the only independent claims in this application, Applicant respectfully submits that all of the pending claims are free of the prior art.

### Information Disclosure Statement (IDS)

At page 2 of the Office Action, the IDS filed September 14, 2004 was again objected to for failing to satisfy 37 C.F.R. § 1.97, in particular, for lacking the fee under 37 C.F.R. § 1.17(p). Applicant respectfully requests reconsideration of this objection, and full consideration of the documents cited in the September 14, 2004 IDS.

Applicant submits the fee under Rule 17(p) concurrently herewith.

For at least the foregoing reasons, Applicant respectfully submits that the September 14, 2004 IDS fully complied with 37 C.F.R. §§ 1.97, 1.98, and therefore respectfully requests withdrawal of the objection thereto, consideration of all of the documents cited therein, and return to Applicant of a copy of the Examiner-initialed PTO-1449.

### Objection to the Oath/Declaration

At pages 2-3 of the Office Action, the Oath/Declaration was again alleged to be defective, and a new Declaration was required, as the original Declaration referenced the parent International application, PCT/IB02/03862. Additionally, at pages 3-4, a Supplemental Declaration was required, in order to reference the Preliminary Amendment filed with this

application. Applicant respectfully requests reconsideration.

Applicant has endeavored to obtain the signatures of all three inventors named in this application. As of the date of filing this paper, only the signature of inventor Rathman could be obtained; inventors Kreis and Oehl have been unavailable, and will not be available until September 2006. Applicant therefore files concurrently herewith a portion of the Substitute Declaration required in the Office Action, correctly referencing only the Swiss priority document, and listing the amendments to this application filed 24 March 2004 (the filing date of this application) and 11 November 2005 (the prior Amendment). Once inventors Kreis and Oehl are again available, their signatures will be obtained and the remainder of the Substitute Declaration promptly filed. Applicant apologizes for the delay in obtaining these signatures.

Thus, by presenting the Substitute Declaration for this application, specifically referencing the Preliminary Amendment filed on 25 March 2004, all of the subject matter contained in that paper is part of this application as filed. While the additional subject matter thus included in the application is more that of nuance, Applicant will attempt to point out on which objections and rejections in the Office Action the Substitute Declaration bears. Applicant has also amended the first paragraph of the specification to indicate that this application is, nominally, a C-I-P of the PCT parent application.

For at least the forgoing reason, Applicant respectfully submits that the Declaration is not objectionable, and therefore respectfully requests withdrawal of the objection thereto.

### **Objection to the Drawings**

At page 3 of the Office Action, the drawings were objected to under 37 C.F.R. § 1.83 because the drawings allegedly fail to show every feature of the invention specified in the claims. Applicant respectfully requests reconsideration of this objection.

Concerning the mention in Claim 2 of certain types of connections that can be formed, Applicant first notes that Claim 2 has been revised to again recite the language from a prior version of the claim, as being more appropriate for an apparatus claim.

Applicant submits herewith three replacement sheets of drawings, including revised

versions of Figs. 1a and 1b (now, 1b and 1c, respectively) to illustrate the connection C between the material 4 and the structure to which it is connected. Additionally, a new Fig. 1a has been added, with corresponding additions to the specification (Brief Description and Detailed Description), to illustrate the elements recited in Claims 1, 2, 10, 11, 12, 13, 16, and 17. Because the application as originally filed discussed these structures, and because new Fig. 1a is minimally detailed, no new matter has been entered.

For at least the foregoing reasons, Applicant respectfully submits that the drawings fully comply with 37 C.F.R. § 1.83, and therefore respectfully requests withdrawal of the objection thereto.

### **Objection to the Amendment filed 11 November 2005**

In the Office Action, at page 9, the Amendment filed 11 November 2005 was objected to as allegedly adding technical subject matter to this application, *i.e.*, for adding new matter to the application. Applicant respectfully requests reconsideration of this objection.

More specifically, the Office Action listed the following items as allegedly adding new matter:

- (1) page 8, line 31 to page 9, line 2, “combinations” of particular materials; and
- (2) the paragraph at page 12, line 21, which indicates that ‘adjoining pieces can be rotary machine components’, in particular that both elements 7, 8 are rotary machine components.

Applicant notes that, by virtue of the accompanying Substitute Declaration, the Preliminary Amendment filed 25 March 2004 is an original part of this application.

Concerning item (1) above, Claim 7 in the March 25<sup>th</sup> Preliminary Amendment recited:

The seal arrangement as claimed in claim 5, wherein the metal foam comprises at least one element selected from the group consisting of Ni, Co, Al, and combinations thereof

Accordingly, the specific subject matter identified in item (1) is a part of the application as originally filed, and is therefore not new matter.

Concerning item (2) and a statement at page 3, which also appears to allege that the statement in the application that the pieces 7, 8 can be 'distance pieces' and 'heat insulation segments' is either new matter or not present in the specification, Applicant notes that the original paragraph at page 8, lines 12-17 states:

In addition to the reduction in the seal gaps between adjacent blade/vane roots, the plastically deformable material is also to be provided between components of the rotary flow machine such as distance intermediate pieces along a guide vane or rotor blade row or heat insulation segments, the so-called heat shields.

Thus, all of the permutations alleged in the Office Action to be either new matter or not in the specification *per se* are embraced by at least this passage, because pieces 7, 8 are not restricted to being platforms.

For at least the foregoing reasons, Applicant respectfully submits that the November 11<sup>th</sup> Amendment is not objectionable as introducing new matter, and therefore respectfully requests withdrawal of the objection thereto.

### **Objection to the Specification**

At page 9 of the Office Action, the Specification was objected to because of a minor informality concerning the protrusion of guide vane roots. Applicant respectfully requests reconsideration of this objection.

By way of the foregoing amendments, Applicant has removed the reference to guide vane roots protruding into the rotor.

For at least the foregoing reasons, Applicant respectfully submits that the Specification is not objectionable, and therefore respectfully requests withdrawal of the objection thereto.

### **Objection to the Claims**

At page 10 of the Office Action, Claim 2 was objected to for a typographical error, which has been removed by way of the foregoing amendments; withdrawal of the objection to Claim 2

is therefore respectfully requested.

**Rejection under 35 U.S.C. § 112, first paragraph**

In the Office Action, beginning at page 5, Claim 7 was rejected under 35 U.S.C. § 112, first paragraph, as reciting subject matter that allegedly fails to comply with the written description requirement. Applicant respectfully requests reconsideration of this rejection.

More specifically, particular subject matter recited in Claim 7 relating to “combinations” of materials was accused of being new matter to the application, and therefore the original specification does not include a written description of that subject matter.

As discussed above with respect to the formal objection to the November 11<sup>th</sup> Amendment, as allegedly adding new matter, the ‘combination’ of the particular materials was present in the application as originally filed by virtue of the Substitute Declaration, and had been added to the specification at pages 8 and 9 in the November 11<sup>th</sup> Amendment; therefore, the specification includes a literal written description of that subject matter by ‘back-insertion’ from the Preliminary Amendment filed 25 March 2004.

For at least the foregoing reasons, Applicant respectfully submits that Claim 7 fully complies with 35 U.S.C. § 112, first paragraph, and therefore respectfully requests withdrawal of the rejection thereof under 35 U.S.C. § 112.

**Rejection under 35 U.S.C. § 112, second paragraph**

In the Office Action, beginning at page 6, Claims 1-17 were rejected under 35 U.S.C. § 112, second paragraph, as reciting subject matters that allegedly are indefinite. Applicant respectfully requests reconsideration of this rejection.

Applicant and the undersigned have again carefully reviewed all of the pending claims in light of the carefully worded comments in the rejections. Once again, Applicant and the undersigned have no difficulty parsing the claim. The crux of this rejection appears to be summed up at the bottom at page 4 of the Office Action, which states: “The use of multiple ‘or’ clauses results in numerous permutations which render the scope of the claims unclear.” The

following suggestion, that Applicant draft a broad generic claim that is clear, is appreciated, in particular because that is a good description of Claim 1: a clear broad claim.

There are numerous examples of complex claims, including high levels of combinations and permutations, which are regularly permitted in U.S. patent practice. For example, Markush claim practice (see M.P.E.P. § 803.02) can permit large numbers of permutations within a single claim, for example when a single compound has multiple variables, each with multiple substituents. Another commonplace example occurs in biotechnology fields, in particular for claims relating to DNA and protein polypeptides, in which the physical relationships between DNA base pairs and the amino acids that they encode result in claims encompassing hundreds, thousands, or millions of permutations; while the PTO oftentimes alleges other statutory problems with such claims, it does not find difficulty understanding the scopes of such claims.

When Mr. Verdier has a specific recommendation that, in his opinion, would better recite the subject matters of the pending claims, he is invited to contact the undersigned as early as possible to discuss it. Otherwise, Applicant again elects to proceed with what are plainly complex, but nevertheless clear, articulations of Applicant's inventive subject matter.

For at least the foregoing reasons, Applicant respectfully submits that Claims 1-17 fully comply with 35 U.S.C. § 112, second paragraph, and therefore respectfully requests withdrawal of the rejection thereof under 35 U.S.C. § 112.

### **Rejection under 35 U.S.C. § 102**

In the Office Action, beginning at page 7, Claims 1-5, 7-8, 10-12 and 16-17 were rejected under 35 U.S.C. § 102, as reciting subject matters that allegedly are anticipated by U.S. Patent No. 6,312,218, issued to Beeck *et al.* ("Beeck '218"). Applicant respectfully requests reconsideration of this rejection.

While Applicant still disagrees with the negative patentability opinions expressed in the Office Action, in an effort to expedite prosecution of the application towards passage to issue, Applicant has elected to place Claims 6 and 9 in independent form. Applicant does so without acquiescing to the rejections in the Office Action, and expressly reserves the right to file one or

more continuation applications to further pursue the subject matter of this application.

Applicant also strongly disagrees with the statement in the Office Action appearing at the bottom of page 5, alleging that certain language recited in Claim 4 is merely directed to an intended use. Claim 4 plainly indicated that the sealing element has particular physical characteristics, rather than Claim 4 merely stating an aspired function of the claimed structures.

For at least the foregoing reasons, Applicant respectfully submits that the subject matters of Claims 1-4, 7-12, 16, and 17 are not anticipated by *Beeck '218*, are therefore not unpatentable under 35 U.S.C. § 102, and therefore respectfully requests withdrawal of the rejection thereof under 35 U.S.C. § 102.

## **Conclusion**

Applicant respectfully submits that the present patent application is in condition for allowance. An early indication of the allowability of this patent application is therefore respectfully solicited.

If Mr. Verdier believes that a telephone conference with the undersigned would expedite passage of this patent application to issue, he is invited to call on the number below.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. If, however, additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and the Commissioner is hereby authorized to charge fees necessitated by this paper, and to credit all refunds and overpayments, to our Deposit Account 50-2821.

Respectfully submitted,

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